

**REMARKS**

Claims 1-115 are currently pending in this application and are rejected to by the Examiner.

Claims 1-7, 10-30, 33-53, 56-76, 79-99 and 102-115 are rejected under 35 U.S.C. § 102(e) as being anticipated by Landvater (U.S. Patent No. 6,609,101, hereafter "Landvater"). Claims 8-9, 31-32, 54-55, 77-78 and 100-101 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Landvater. Applicant respectfully traverses the rejections in the remarks that follow.

**Interview and Technology Tutorial Report**

Applicant appreciates the opportunity to present a tutorial on the technology disclosed in multiple applications pending before Examiner Van Doren and her colleagues. A copy of the presentation used during a WebEx conference was provided to the Examiner is attached. During the conference, we followed the slides. The presentation went longer than planned, so there was not much time to discuss the Landvater reference or the rejections based on Landvater. No amendments were proposed and no agreements were reached.

**The Drawings**

The drawings are objected to on various grounds.

FIG. 1 has been revised in this case consistent with the revised drawings accepted by the Examiner in a sister case as depicting all elements of the claims. The drawings have been renumbered and the labels conformed to the new figure numbers.

**The Specification**

The disclosure is objected to by the Examiner in relationship to the drawings. A substitute specification is submitted with this response, with numbered paragraphs and corrected references to the drawings.

**Objections to Claims**

Claims 23, 46, 69, 92 and 115 have been amended as suggested to correct a typographical error.

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**Rejection Under 35 U.S.C. § 102(e) of Claim 24 (Open to Buy Analysis)**

The Examiner rejects **claim 24 (Open to Buy Analysis)** under 35 U.S.C. § 102(e) as anticipated by Landvater (U.S. 6,609,101). This claim includes the limitations:

*a presentation demand calendar utilized by the forecasting program to generate the output, said presentation demand calendar associating with a plurality of good-selling location pairs, data including a good identifier, a selling location identifier, a presentation demand type that selects one of a plurality of alternative treatments of presentation demand, and one or more presentation quantities associated with a start date and a stop date; and*

*an additional analysis program in the set of analysis programs generating data reported in open to buy reports.*

These limitations are not found in Landvater.

Landvater's simplistic approach to taking into account attractive display of merchandise does not include "*a presentation demand type that selects one of a plurality of alternative treatments of presentation demand*". Paragraphs [0013] & [0036] *et seq.* of the amended specification describe alternative presentation types and treatments, which directly impact the analysis of inventory and demand. Landvater's safety stock approach to attractive displays (cols. 14-15) does not specify a presentation a calendar having the claimed elements.

For lack of a presentation calendar with the elements claimed, including a *presentation demand type that selects one of a plurality of alternative treatments of presentation demand*, Landvater cannot meet the Examiner's burden for showing anticipation.

Landvater also lacks an open to buy report. This term of art is invoked and applied on page 9 of the application:

Open-to-buy (OTB) management: In OTB management, future inventory levels are predicted based on current inventory, expected selling, and expected receipts; the future inventory levels are then compared to budgeted levels in order to determine whether the current sales and ordering plan will result in exceeding the inventory budget (typically at the department level or higher). Because the future rate of selling is critical to calculating what future inventory levels will be, the OTB system or OTB activity should find it is helpful to get the causal event information from the causal event calendar in

order to make the most accurate determination of the future rate of selling for an good.

Similarly, this term of art is defined in multiple web-based references, such as [http://retailindustry.about.com/od/abouttheretailindustry/l/bld\\_otb.htm](http://retailindustry.about.com/od/abouttheretailindustry/l/bld_otb.htm), which explains, "What is Open-to-Buy? Definition: Open-to-Buy is the difference between planned purchases and stock already ordered; the dollar amount of merchandise that a buyer can order for a particular period." See also, <http://retailindustry.about.com/gi/dynamic/offsite.htm?site=http%3A%2F%2Fwww.planfact.co.uk%2Fcontrol.htm>. Neither the term "open to buy" nor the concept as it is used in the art appear in Landvater. The cited financial planning paragraph, col. 20, lines 29-47, does not provide a written description of open to buy reporting that would anticipate claim 24. Therefore, the open to buy integrated reporting limitation is a further basis for allowing the claim.

Applicant respectfully submits that claims 24 (Open to Buy Analysis) should be allowable over Landvater.

#### **Rejection Under 35 U.S.C. § 102(e) of Claim 47 (Markdown Analysis)**

The Examiner rejects **claim 47 (Markdown Analysis)** under 35 U.S.C. § 102(e) as anticipated by Landvater (U.S. 6,609,101). This claim includes the limitations:

*a presentation demand calendar utilized by the forecasting program to generate the output, said presentation demand calendar associating with a plurality of good-selling location pairs, data including a good identifier, a selling location identifier, a presentation demand type that selects one of a plurality of alternative treatments of presentation demand, and one or more presentation quantities associated with a start date and a stop date; and*

*an additional analysis program in the set of analysis programs generating data reported in markdown management reports.*

These limitations are not found in Landvater.

Landvater lacks a promotional calendar having the claimed elements, as explained above. His simplistic safety stock approach cannot meet the Examiner's burden for showing anticipation.

Landvater also lacks a markdown management report, which is not surprising given the absence of any mention of markdowns. This term of art is invoked and applied on page 9 of the application:

Markdown management: A markdown management system or markdown activity within a system typically determines the optimal timing and level of markdowns of a seasonal or fashion program in order to sell the total purchased quantity by a predetermined “out date” while maximizing revenue.

In order for a markdown management system to perform, it needs to query the causal event calendar in order to determine what event occur between the date of the markdown analysis and the “out date” in order to calculate the expected selling. For example, an good that has no event planned before its “out date” might require a markdown in order to reach full sell-through based on the rate of selling to-date; however, that same good with the same selling to-date may not require a markdown if some other event – a visual promotion, perhaps – is planned to take effect between the date of analysis and the “out date.” Because the future likely rate of selling is critical to calculating what markdowns and markdown levels will be required, the Markdown system or Markdown activity should find it is helpful to get the causal event information from the causal event calendar in order to make the most accurate determination of what markdowns are best.

The Examiner seems to understand that Landvater lacks markdown management, as none of the discussion at pages 3-4 of the office action applies passages of Landvater to markdown management. Therefore, the markdown management integrated reporting limitation is a further basis for allowing the claim.

Applicant respectfully submits that claims 47 (Markdown Analysis) should be allowable over Landvater.

#### **Rejection Under 35 U.S.C. § 102(e) of Claim 70 (Bottom-up Analysis)**

The Examiner rejects **claim 70 (Bottom-up Analysis)** under 35 U.S.C. § 102(e) as anticipated by Landvater (U.S. 6,609,101). This claim includes the limitations:

*a presentation demand calendar utilized by the forecasting program to generate the output, said presentation demand calendar associating with a plurality of good-selling location pairs, data including a good identifier, a selling location identifier, a presentation demand type that selects one of a plurality of alternative treatments of presentation demand, and one or more presentation quantities associated with a start date and a stop date; and*

These limitations are not found in Landvater.

Again, Landvater lacks a promotional calendar having the claimed elements, as explained above. His simplistic safety stock approach cannot meet the Examiner’s burden for showing anticipation.

Applicant respectfully submits that claims 70 (Bottom-up Analysis) should be allowable over Landvater.

**Rejection Under 35 U.S.C. § 102(e) of Claim 93 (Promotional Forward Buying Analysis)**

The Examiner rejects **claim 93 (Promotional Forward Buying Analysis)** under 35 U.S.C. § 102(e) as anticipated by Landvater (U.S. 6,609,101). This claim, as amended, includes the limitations:

*a presentation demand calendar utilized by the forecasting program to generate the output, said presentation demand calendar associating with a plurality of good-selling location pairs, data including a good identifier, a selling location identifier, a presentation demand type that selects one of a plurality of alternative treatments of presentation demand, and one or more presentation quantities associated with a start date and a stop date; and*

*an additional analysis programs in the set of analysis programs generating data reported in promotional forward buying reports.*

These limitations are not found in Landvater.

Still, Landvater lacks a promotional calendar having the claimed elements, as explained above. His simplistic safety stock approach cannot meet the Examiner's burden for showing anticipation.

The analysis programs mentioned by Landvater do not include promotional forward buying analysis. as described by the application at [0035], [0042] & [0053-54].

Applicant respectfully submits that claims 93 (Promotional Forward Buying Analysis) should be allowable over Landvater.

**Rejection Under 35 U.S.C. § 102(e) of Claim 1-7, 10-23, 25-30, 33-46, 48-53, 56-69, 71-76, 79-92, 94-99 and 102-115**

The Examiner rejects **claim 1-7, 10-23, 25-30, 33-46, 48-53, 56-69, 71-76, 79-92, 94-99 and 102-115** under 35 U.S.C. § 102(e) as anticipated by Landvater (U.S. 6,609,101).

**Claim 1**

**Claim 1** includes limitations bridging the previously discussed claims:

*a presentation demand calendar utilized by the forecasting program to generate the output, said presentation demand calendar associating with a plurality of good-selling location pairs, data including a good identifier, a selling location identifier, a presentation demand type that selects one of a plurality of alternative treatments of presentation demand, and one or more presentation quantities each associated with a start date and a stop date; and*

*one or more additional analysis programs in the set of analysis programs generating at least two of:*

*open to buy analysis;*

*markdown management analysis;*

*promotional forward buying analysis; or*

*bottom-up planning analysis*

These limitations are not found in Landvater.

Landvater lacks a presentation calendar, as explained above. For lack of a presentation calendar with the elements claimed, including an presentation type for handling of multiple types of presentations, Landvater cannot meet the Examiner's burden for showing anticipation.

Landvater also lacks the claimed two-out-of-three of open to buy analysis, markdown management analysis or bottom-up planning analysis. In the context of claims 47 and 70, substantial attention is devoted to the lack of open to buy or markdown management reports. Lacking these analysis types, Landvater cannot meet the Examiner's burden for showing anticipation.

Therefore, claim 1 should be allowable over Landvater.

Claims 2, 25, 48, 71 and 94

**Claims 2, 25, 48, 71 and 94** include the limitations:

*wherein the start date and the stop date are implicitly associated with a memory location in which the presentation quantity is stored*

These limitations are not found in Landvater. The passages cited by the Examiner include clear reference to explicitly including at least the start date in the shelf configuration database:

Database 36 preferably stores the following shelf configuration information: the number of facings (product facing the consumer), the minimum number

of rows deep required to create an attractive display, the maximum number of rows allocated to this product, the amount of back room safety stock (safety stock maintained in a location other than the store shelf), and the date this configuration becomes effective.

Col. 14, lines 37-45.

Therefore, claims 2, 25, 48, 71 and 94 should be allowable over Landvater.

Claims 3-7, 26-30, 49-53, 72-76 and 95-99

Claims 3-7, 26-30, 49-53, 72-76 and 95-99 should be allowable over Landvater for at least the same reason as the claims from which they depend.

Claims 10-14, 33-37, 56-60, 79-83 and 102-106

Claims 10-14, 33-37, 56-60, 79-83 and 102-106 should be allowable over Landvater for at least the same reason as the claims from which they depend.

Claims 15-18, 38-41, 61-64, 84-87 and 108-111

**Claims 15-18, 38-41, 61-64, 84-87 and 108-111** include limitations that specify how good and event identifier attributes apply to individual or groups of goods and selling locations:

*a single good at a single selling location*

*a single good at a group of selling locations*

*a group of goods at a single selling location*

*a group of goods at a group of selling locations*

These variations on a presentation calendar, which includes the group and selling location identifier attributes, are not found in Landvater. Again, Landvater does not include the claimed presentation event calendar, so it is not surprising that variations on interpretation of group and selling location identifier attributes in a causal calendar are lacking.

Therefore, claims 15-18, 38-41, 61-64, 84-87 and 108-111 should be allowable over Landvater.

Claims 19-22, 42-45, 65-68, 88-91 and 112-114

Claims 19-22, 42-45, 65-68, 88-91 and 112-114 should be allowable over Landvater for at least the same reason as the claims from which they depend.

Claims 23, 46, 69, 92 and 115

**Claims 23, 46, 69, 92 and 115** include the limitations:

*wherein the analysis is utilized as input to an additional process*

This limitation applies in the respective claims to OTB analysis, markdown analysis, bottom-up analysis and promotion forward buying analysis. The passages cited from Landvater do not use the output of these analyses as input to an additional process in an integrated system. By and large, Landvater does not produce these analyses at all, as discussed above.

Therefore, claims 23, 46, 69, 92 and 115 should be allowable over Landvater.

**Rejection Under 35 U.S.C. § 103(a) of Claims 8-9, 31-32, 54-55, 77-78 and 100-101**

The Examiner rejects **claims 8-9, 31-32, 54-55, 77-78 and 100-101** under 35 U.S.C. § 103(a) as unpatentable over Landvater (U.S. 6,609,101), a single reference.

Applicant respectfully submits that claims 8-9, 31-32, 54-55, 77-78 and 100-101 should be allowable over Landvater for at least the same reason as the claims from which they depend.

**New Claims**

Four new claims are added regarding the use of fixtures to conveniently describe the arrangement of items in store presentations. These claims are supported by figures 7-9 and the associated text. Applicant does not intend to introduce any new matter in these claims.

**CONCLUSION**

Applicant respectfully submits that the pending claims are now in condition for allowance and thereby solicits acceptance of the claims, in light of these amendments.

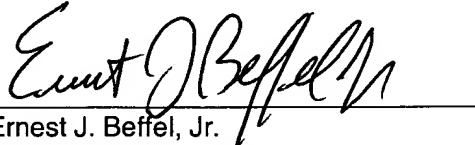


**Application No. 09/766,539**

**Atty Docket No. BLFR 1005-1**

The Commissioner is hereby authorized to charge any underpayment of fees, or credit any overpayment, to our Deposit Account No. 50-0869 (Attorney Docket No. BLFR 1005-1).


Respectfully submitted,

A handwritten signature in dark ink, appearing to read "Ernest J. Beffel, Jr.", is written over a horizontal line.

Ernest J. Beffel, Jr.  
Registration No. 43,489

Dated: 3 August 2005

HAYNES BEFFEL & WOLFELD LLP  
P.O. Box 366  
Half Moon Bay, CA 94019  
Telephone: (650) 712-0340  
Facsimile: (650) 712-0263



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S Y S T E M S

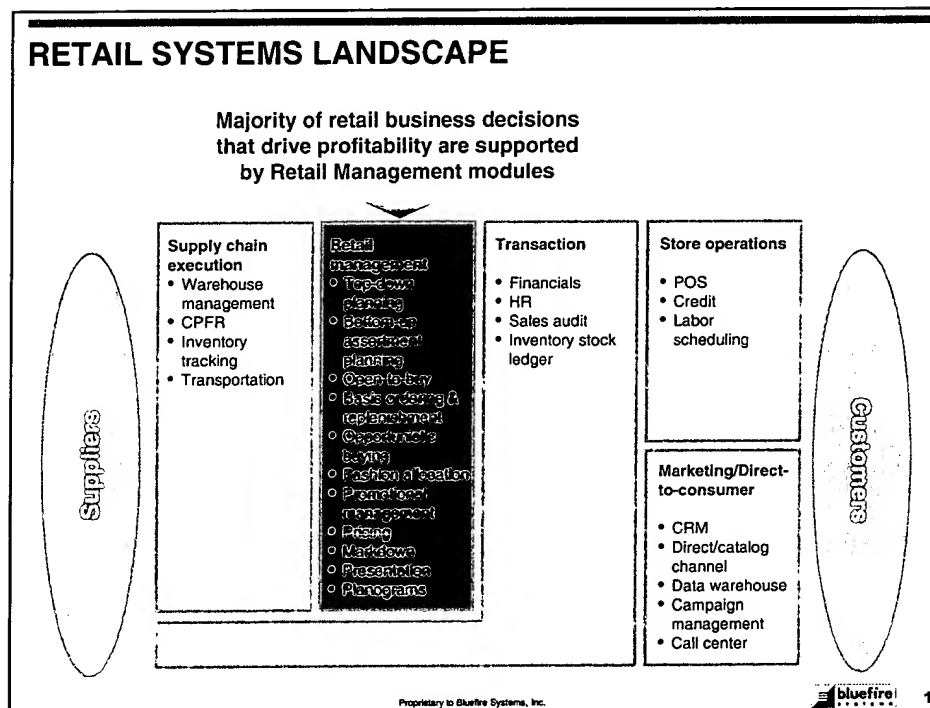
## Bluefire Presentation to Examiner Beth van Doren

May 27, 2005

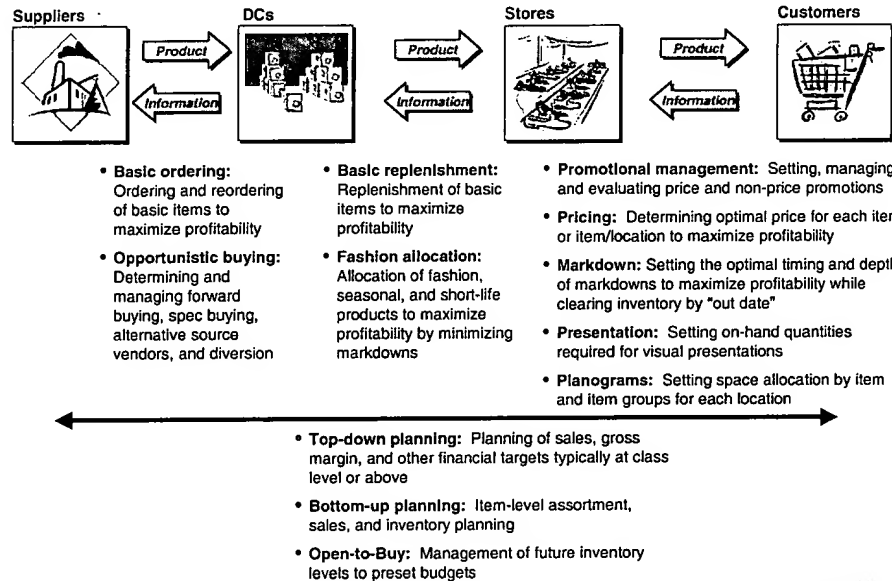
Application Nos. 09/755,635, 09/755,355, 09/760,377, 09/888,336,  
09/766,539 and 09/905,174, Atty Docket Nos. BLFR 1001-1 to 1006-1

(Examiner Jeanty: 09/708,944, Atty Docket No. BLFR 1000-1  
Examiner Hirt: 09/905,255, Atty Docket No. BLFR 1007-1)

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## KEY ELEMENTS OF RETAIL MANAGEMENT

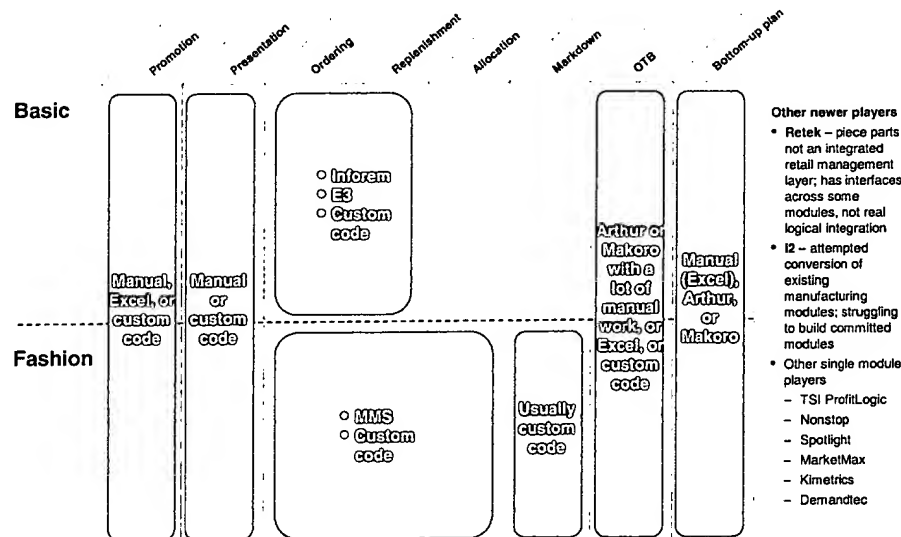


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## RETAILERS NOT INTEGRATED TODAY – EXAMPLES OF PREVALENT INSTALLED BASE

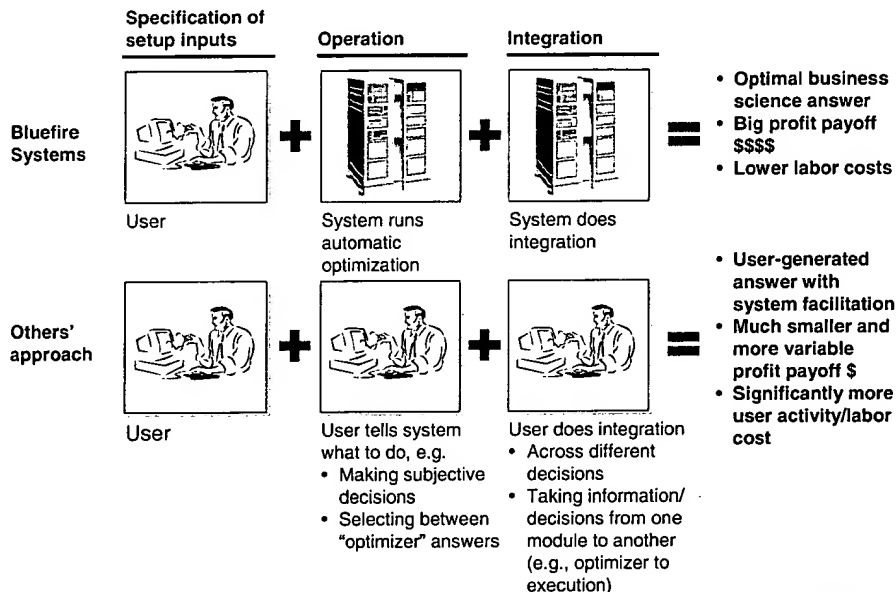


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## BLUEFIRE SYSTEM VS. OTHERS' APPROACH



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## SIMILAR BUSINESSES, DRAMATICALLY DIFFERENT RESOURCE REQUIREMENTS

	Non-Bluefire user	Bluefire user
Retailer type	Specialty	Specialty
Revenue	~\$250 million	~\$200 million
Number of stores	116	285
Number of styles (in any one store)	1,500	1,200
Number of DCs	1	1
Planning and allocation FTEs	34	13
• Directors/other mgmt.	4	3
• Planners	14	9
• Allocators	16	1
Retail Management Systems/Tools	MMS Makoro Custom code Essbase database Excel	Bluefire Systems Excel

Two similar-sized specialty retailer subsidiaries of large retailers; the one running Bluefire has 60% less people and manages the goods at a more detailed level

300,000 + style x locations

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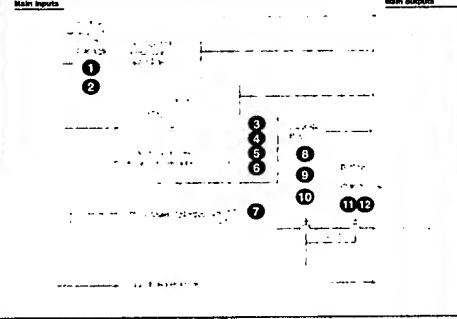
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## AUTOMATIC INCORPORATION OF CHANGES – PRESENTATION EXAMPLE



### BLUEFIRE SYSTEM LOGICAL LAYOUT



### Action: change in-store presentation quantity for a future event

#### Automatic results

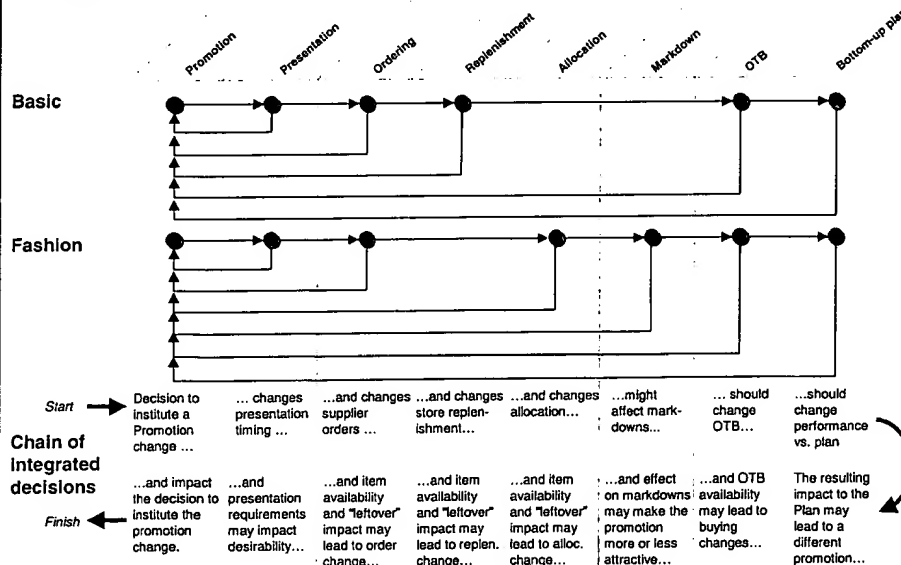
Presentation and event manager	1 Identification of noneconomic presentation quantities
	2 Flagging of within cycle changes
Buying and Inventory Optimizer	Changes during appropriate periods of
	3 Orders
	4 Allocations
	5 Distributions
	6 Identification of any stockouts induced by changes
Markdown manager	7 Changes of suggested optimal markdowns (likely caused by suboptimal inventory location)
OTB	Changes in OTB in appropriate time periods for the impact of changes in
	8 Orders/postalocations
	9 DC inventory
	10 Store inventory
Bottom-up planning	Changes bottom-up plan GMROI and other projected results in appropriate time periods for the impact of changes in
	11 DC inventory
	12 Store inventory

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## INTEGRATED RETAIL MANAGEMENT DECISIONS – BLUEFIRE EXAMPLE OF A PROMOTION CHANGE



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## BLUEFIRE SYSTEMS DECISION INTEGRATION

	Promotion	Presentation	Ordering	Replenishment	Allocation	Markdown	OTB	Bottom-up Plan	Top-down Plan	Comments
Promotion		✓	✓	✓	✓	✓	✓	✓		Promotions typically change sales and stock and, in many cases, presentation
Presentation	✓		✓	✓	✓	✓	✓	✓		Presentations typically change stocking and typically sales (many times acting as presentation promotion)
Ordering	✓	✓		✓	✓		✓	✓		Orders impact the availability of goods for replenishment, allocations, presentations, and promotions, and change OTB and Bottom-up Plan results
Replenishment	✓	✓	✓				✓	✓		How replenishments are being done impact orders, promotions (e.g., no point running a promotion if you do not stock for it), and presentations, and the results in OTB and Bottom-up Plans
Allocation	✓	✓	✓			✓	✓	✓		How allocations are being done impact orders, promotions, presentations, and markdowns, and the results in OTB and Bottom-up Plans
Markdown	✓	✓			✓		✓	✓		Markdowns impact promotions, presentations, and allocations, and change the results in OTB and Bottom-up planning
OTB	✓	✓	✓	✓	✓	✓		✓		OTB decisions impact the availability of goods for all the other decisions
Bottom-up Plan	✓	✓	✓			✓	✓			Decisions you make to hit plan typically alter how you promote, present, order, markdown, and what you do with OTB
Top-down Plan							✓	✓		The Top-down Plan is generally done before other activities and feeds budgets to OTB and Bottom-up planning

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## OTB REPORT – ITEM LEVEL EXAMPLE

OTB REPORT BY ITEM REPORT		SCM		③		④		⑤		①	②	③	⑥	⑦	⑧
Item	Rev	ROI Inventory (thd)	Pos Budget (thd)	Revised Budget (thd)	FCM Budget (thd)	Price Income (thd)	Other Change (thd)	SAP Change (thd)	Sales (thd)	Forecast Inventory Budget (thd)	Actual OTB (thd)	Net OTB (thd)	Net Sales (thd)	Statistical Overstock (thd)	Overstock Above (thd)
1000	22042	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1001	22043	0	150.20	0	0	0	0	0	0	150.20	-48.03	-48.03	0	0	0
1002	22044	630.20	0	120.20	0	0	0	0	630.20	67.85	630.20	630.20	0	0	0
1003	22045	677.25	0	172.20	0	0	0	0	677.25	150.20	630.20	110.05	0	114.05	0
1004	22046	630.20	0	120.20	0	0	0	0	630.20	110.05	0	110.05	0	0	0
1005	22047	630.20	0	120.20	0	0	0	0	630.20	110.05	0	110.05	0	0	0
1006	22048	630.20	0	120.20	0	0	0	0	630.20	110.05	0	110.05	0	0	0
1007	22049	630.20	0	120.20	0	0	0	0	630.20	110.05	0	110.05	0	0	0
1008	22050	630.20	0	120.20	0	0	0	0	630.20	110.05	0	110.05	0	0	0
1009	22051	630.20	0	120.20	0	0	0	0	630.20	110.05	0	110.05	0	0	0
1010	22052	630.20	0	120.20	0	0	0	0	630.20	110.05	0	110.05	0	0	0
1011	22053	630.20	0	120.20	0	0	0	0	630.20	110.05	0	110.05	0	0	0
1012	22054	630.20	0	120.20	0	0	0	0	630.20	110.05	0	110.05	0	0	0
1013	22055	630.20	0	120.20	0	0	0	0	630.20	110.05	0	110.05	0	0	0
1014	22056	630.20	0	120.20	0	0	0	0	630.20	110.05	0	110.05	0	0	0
1015	22057	630.20	0	120.20	0	0	0	0	630.20	110.05	0	110.05	0	0	0
1016	22058	630.20	0	120.20	0	0	0	0	630.20	110.05	0	110.05	0	0	0
1017	22059	630.20	0	120.20	0	0	0	0	630.20	110.05	0	110.05	0	0	0
1018	22060	630.20	0	120.20	0	0	0	0	630.20	110.05	0	110.05	0	0	0
1019	22061	630.20	0	120.20	0	0	0	0	630.20	110.05	0	110.05	0	0	0
1020	22062	630.20	0	120.20	0	0	0	0	630.20	110.05	0	110.05	0	0	0

### OTB for basic items automatically generates:

- ① Budgets flowed down from specified values via sales or optimal stocking inventory
- ② Calculates actual OTB
- ③ Calculates a statistical OTB where national orders (in minimum order quantities if applicable) have been placed to maintain basic optimal stocking and fashion re-buys
- ④ Calculates any revenue lost to planned markdowns, promotional discounts, and other discounts (e.g., employee sales or write-offs) and gains from SAP increases
- ⑤ Calculates forecasted sales net of discounts and any stockouts
- ⑥ Calculates any sales forecasted to be lost to stockouts
- ⑦ Calculates any overstocks, including minimum order quantity induced levels
- ⑧ Calculates any overstocks above minimum order quantities and where an actual PO exists

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## NUMBER OF BOTTOM-UP PLANNING FORECAST REPORTS AUTOMATICALLY GENERATED

Monthly Merchandise Forecast													
Bottom-Up Planning - Chain Summary Performance Report													
Activity: Chain 9059													
UserID: "Bask"													
Report date: 8/6/2000													
Month	Revenue (\$000)					Gross Margin					Inventory		
	This Year	Last Year	This Budget	Last Year	This vs	This Year	Last Year	This Budget	Last Year	This vs	This Year	Last Year	This Budget
	(dollars)	(dollars)	(dollars)	(dollars)	(dollars)	(percent)	(percent)	(percent)	(percent)	(percent)	(units)	(units)	(units)
February-00	Actual	8,743	8,200	8,333	533	32.2%	34.2%	33.5%	1.6%	1.6%	5.4	6.3	5.4
March-00	Actual	8,043	8,500	8,733	643	33.7%	34.6%	34.0%	-0.3%	-0.3%	6.3	7.0	6.1
April-00	Actual	8,123	8,158	8,308	185	31.0%	31.2%	31.0%	-1.0%	0.0%	6.1	6.3	6.1
May-00	Actual	8,333	8,213	8,150	183	33.7%	33.8%	33.8%	-0.1%	0.0%	6.3	6.3	6.3
June-00	Actual	8,387	8,276	8,337	111	34.0%	34.1%	34.1%	-0.2%	0.0%	6.3	6.3	6.3
July-00	Actual	8,333	8,333	8,333	0	34.0%	34.1%	34.1%	-0.2%	0.0%	6.3	6.3	6.3
August-00	Actual	8,333	8,333	8,333	0	34.0%	34.1%	34.1%	-0.2%	0.0%	6.3	6.3	6.3
September-00	Actual	8,333	8,333	8,333	0	34.0%	34.1%	34.1%	-0.2%	0.0%	6.3	6.3	6.3
October-00	Forecasted	8,333	8,333	8,333	0	34.0%	34.1%	34.1%	-0.2%	0.0%	6.3	6.3	6.3
November-00	Forecasted	8,333	8,333	8,333	0	34.0%	34.1%	34.1%	-0.2%	0.0%	6.3	6.3	6.3
December-00	Forecasted	8,333	8,333	8,333	0	34.0%	34.1%	34.1%	-0.2%	0.0%	6.3	6.3	6.3
January-01	Forecasted	8,333	8,333	8,333	0	34.0%	34.1%	34.1%	-0.2%	0.0%	6.3	6.3	6.3
February-01	Forecasted	8,333	8,333	8,333	0	34.0%	34.1%	34.1%	-0.2%	0.0%	6.3	6.3	6.3
March-01	Forecasted	8,333	8,333	8,333	0	34.0%	34.1%	34.1%	-0.2%	0.0%	6.3	6.3	6.3
April-01	Forecasted	8,333	8,333	8,333	0	34.0%	34.1%	34.1%	-0.2%	0.0%	6.3	6.3	6.3
May-01	Forecasted	8,333	8,333	8,333	0	34.0%	34.1%	34.1%	-0.2%	0.0%	6.3	6.3	6.3
June-01	Forecasted	8,333	8,333	8,333	0	34.0%	34.1%	34.1%	-0.2%	0.0%	6.3	6.3	6.3
July-01	Forecasted	8,333	8,333	8,333	0	34.0%	34.1%	34.1%	-0.2%	0.0%	6.3	6.3	6.3
August-01	Forecasted	8,333	8,333	8,333	0	34.0%	34.1%	34.1%	-0.2%	0.0%	6.3	6.3	6.3
September-01	Forecasted	8,333	8,333	8,333	0	34.0%	34.1%	34.1%	-0.2%	0.0%	6.3	6.3	6.3

Bottom-up Planning generates future forecasts of:

- Performance at different levels of product hierarchy
- Item and store level selling (daily, weekly, and monthly units and dollars)
- Supplier or production orders (daily, weekly, or monthly)
- Item-level DC and store inventories (daily, weekly, or monthly)

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## BLUEFIRE SYSTEMS KEY BENEFITS SUMMARY






Module	Results in...
Presentation and Event Manager	<ul style="list-style-type: none"> <li>• Incorporation of visual presentations in all decisions and identification of non-economic visual quantities; incorporation of promotional/causal events in all decisions and identification of successful and unsuccessful events</li> </ul>
Buying and Inventory Optimizer	<ul style="list-style-type: none"> <li>• Right order quantities from suppliers at right time to maximize profits/return; right stocking of stores and minimization of inventory throughout supply chain</li> </ul>
Markdown Optimizer	<ul style="list-style-type: none"> <li>• Suggests optimal timing and level of markdowns to maximize revenue and profits; more effective decisions and in-store execution from seeing rest-of-season markdown timings each time</li> </ul>
Open-to-buy	<ul style="list-style-type: none"> <li>• Massive elimination of workload and more effective determination of where reductions in inventory would have minimal impact on sales and profits</li> </ul>
Bottom-Up Planner	<ul style="list-style-type: none"> <li>• Massive elimination of workload and better determination of which products to buy, where to include them in the store assortments, and how they will perform</li> </ul>
Top-Down Planner	<ul style="list-style-type: none"> <li>• Less costly development of long term financial plans</li> </ul>

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## RIGHT LOGICAL DESIGN OVERVIEW

Logical element	Description	
	Fashion/basic split	Optimize inventory differently for fashion, basic, and seasonal basic products
	Item/location/day optimization	Sales forecasts and inventory optimization done at the item/location/day level
	Multi-echelon optimization	Every echelon of the supply chain integrated into the optimization in a manner that minimizes the exposure to high sales variability situations
	Correct presentation/event integration	Correct integration of presentational and promotional events throughout all the calculations of the system
	Right calculation engines	Proper separation of fashion, and basic, and then integration of all setup and calculations to yield the best answers


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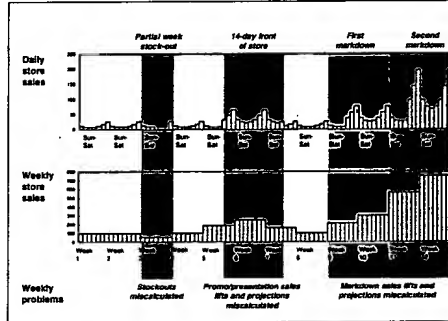
## BASIC, SEASONAL, AND FASHION LOGIC

	Basic	Seasonal	Fashion
<b>Overall approach</b>	<ul style="list-style-type: none"> <li>Model stock pull</li> </ul>		<ul style="list-style-type: none"> <li>Model stock-driven push-pull-push</li> </ul>
<b>Forecasting</b>	<ul style="list-style-type: none"> <li>Historical item projection via auto-selected causal or noncausal math</li> <li>Daily forecast</li> <li>Item/location-specific coverage cycles</li> </ul>		<ul style="list-style-type: none"> <li>Historical profile and historical share projection with inseason auto correction</li> <li>Daily forecast</li> <li>Item/location-specific coverage cycles</li> </ul>
<b>Optimal quantity method</b>	<ul style="list-style-type: none"> <li>Economic cost/benefit optimization</li> </ul>		<ul style="list-style-type: none"> <li>Preseason in planning or basic</li> <li>Inseason profile and actual performance-driven</li> </ul>
<b>History</b>	<ul style="list-style-type: none"> <li>This item or cloned item</li> <li>Stockout corrected</li> </ul>		<ul style="list-style-type: none"> <li>Item or group of items</li> <li>Stockout/markdown corrected</li> </ul>
<b>Presentation incorporation</b>	<ul style="list-style-type: none"> <li>Sell in through to protected</li> <li>Special display option</li> </ul>		<ul style="list-style-type: none"> <li>Different flavors of scaling down</li> <li>Initial protect option</li> </ul>
<b>Event factor incorporation</b>	<ul style="list-style-type: none"> <li>Automatic</li> </ul>		<ul style="list-style-type: none"> <li>Automatic</li> </ul>

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## WHY BLUEFIRE USES DAILY TIME PERIOD FOR FORECASTING



### Advantages of daily

- Better filling of stockout problems
- More accurate historical calculation of presentation, promotional, and markdown sales lifts
- More accurate future application of presentation, promotional, and markdown lifts
- Use exact cycles so a 9-day coverage cycle does not turn into 1 week (7 days) or 2 weeks (14 days)
- Input events exactly so you do not have to handle what to do with events that do not start and stop cleanly on week breaks

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## INCORPORATING PRESENTATIONS CORRECTLY



### Options for treatment of presentation quantities\*

### Use for basic items

### Use for fashion items

#### 1. Protect



Retains PQ in almost all cases

- Do not sell into presentation

- Do not sell into presentation (used only beginning of life)

#### 2. Sell-in



Could result in



- Sell into presentation quantity

- Generally not used in fashion

#### 3. Phase-down



- Reduce presentations at the end of events

- Reduce presentations at end of life

#### 4. Special display minimum



- Additive to normal presentation for some period of time

- Additive to normal presentation, initial distribution only

**Right type of presentation inclusion has major inventory and sales impact**

\* Seasonal basic items can be treated like basic or fashion

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## RIGHT CALCULATION APPROACH - ORDER EXPEDITE REPORT NEW ITEM EXAMPLE

Order Expedite Report  
Activity Class 203  
Item ID: 101239  
Report date: 01/01/00

SKU Number	Date	Total # Stores Onhand/Intransit	DC Average Onhand (units)	DC Statistical Onhand (units)	Received POs today (units)	All Stores Projected Daily Sales (units)	Statistical Stockout Flag (yes or no)	DC Coverage Cycle (days)
101239	05/19/00	0	0.0	0.0	0	0.0	yes	67
101239	05/22/00	56	-56.0	-56.0	0	0.0	yes	67
101239	05/21/00	92	-92.0	-92.0	0	0.0	yes	67
101239	05/22/00	195	-195.0	-195.0	0	0.0	yes	67
101239	05/23/00	203	-203.0	-203.1	0	0.0	yes	67
101239	05/24/00	502	-502.0	-502.1	0	0.0	yes	67
101239	05/25/00	1056	-1056.0	-1056.1	0	0.0	yes	67
101239	05/26/00	1910	-1910.0	-1910.1	0	0.0	yes	67
101239	05/27/00	1998	-1998.0	-1998.2	0	0.0	yes	67
101239	05/28/00	2313	-2313.0	-2313.2	0	0.0	yes	67
101239	05/29/00	2345	-2345.0	-2345.2	0	0.0	yes	67
101239	05/30/00	2345	3655.0	3654.7	6000	0.0	no	67
101239	07/01/00	2346	3654.0	3653.7	0	0.0	no	67
101239	07/02/00	2346	3654.0	3653.7	0	0.0	no	67
101239	07/03/00	2346	3654.0	3653.6	0	0.0	no	67
101239	07/04/00	2346	3654.0	3653.5	0	0.0	no	67
101239	07/05/00	2346	3654.0	3653.3	0	0.0	no	67
101239	07/06/00	2346	3654.0	3653.2	0	0.0	no	67
101239	07/07/00	2346	3654.0	3653.1	0	0.0	no	67
101239	07/08/00	2343	3577.3	3630.5	0	79.2	no	67
101239	07/09/00	2341	3523.3	3607.8	0	79.2	no	67
101239	07/10/00	2339	3469.3	3594.6	0	79.2	no	67
101239	07/11/00	2339	3415.3	3569.6	0	79.2	no	67

Date first shipment needs to leave DC to go to longest-lead-time stores

Quantity understocked by day

Days stocked out

Start of selling in stores (in date)

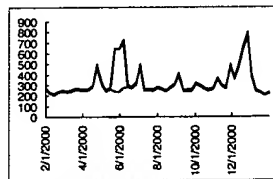
The system uses in dates, out dates, and other action trigger dates to automatically optimally stock the DCs and stores – identifying problems where they occur

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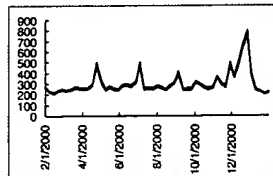
## RIGHT CALCULATION APPROACH - STORE-LEVEL ADJUSTMENTS FOR EVENTS AND SEASONALITY

Promotional response



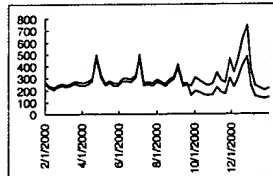
- Promotional event sales acceleration
- Cross-item event sales acceleration or cannibalization

Seasonal responses



- Holiday periods (e.g., Christmas)
- Back-to-school
- Winter/summer stores (e.g., Florida, Phoenix)

Other cannibalization impacts



- Assortment addition or elimination
- Close by store addition or elimination
- Close by competitor store addition or elimination

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## ITEMS ARE CLONED IF NECESSARY TO GET SUFFICIENT ITEM/STORE HISTORY

The screenshot shows the Bluefire software interface with two panes. The left pane, titled 'All Products (All SKUs)', contains a list of products including '00010 - NO HASSEL DE TANGLINE SPRAY', '00011 - STRAIGHTEN BALM', and others. The right pane, titled 'All Products (New SKUs)', contains a list of products including '10000 - SHAMR GL CLIPASOU 8.4oz', '10001 - SHAMR GL CLIPASOU 16.8oz', and others. Below the panes, there are input fields for 'Conversion Factor', 'Days until MAP actual' (set to 30), and 'Days until ACTUAL ONLY' (set to 730). There is also a 'Map On hand' checkbox. To the right of these fields is an 'Apply Mapping' section with a 'Map latest' button. On the far right, there are buttons for 'Recalc', 'OK', 'Apply', 'Cloning', 'List', and 'Close'.

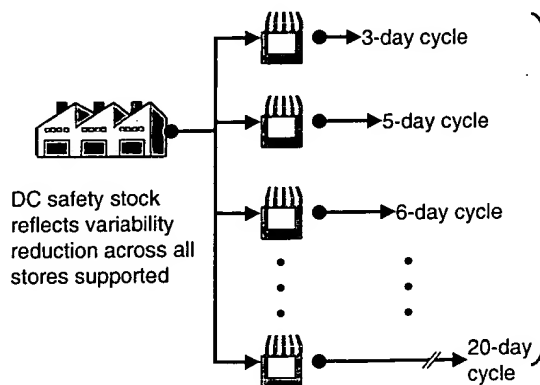
Bluefire allows easy cloning and automatic updating of new products and new locations

- Predecessor items
- Totally new items
- New stores

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## SAFETY STOCKS OPTIMIZED TO CYCLE VARIABILITY ...



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## ... AND RIGHT SERVICE LEVEL ...

EXAMPLE

### Cost of stock

- Incremental inventory cost
- Extra shipping/handling cost
- Extra markdown cost
- Extra other costs



### Benefit of incremental sale

- Contribution margin from otherwise unfulfilled sale

Optimal in-stock  
equals balance point

Type product	Example cost issues	Example benefit issues	Optimal in-stock
Seasonal basic item	• End-of-life markdown exposure	• Moderate to high gross margin	96.2%*
Basic item	• Very predictable selling • Moderate to low extra expedite shipping/handling costs	• Moderate gross margin	97.8%
Basic item	• Less predictable selling	• Low gross margin	98.7%
Basic item	• Very predictable selling	• High gross margin	99.3%

Note: Optimal in-stock can vary significantly by retailer and type of good

\* Through a seasonal out-of-date type cutoff (not entire product life)

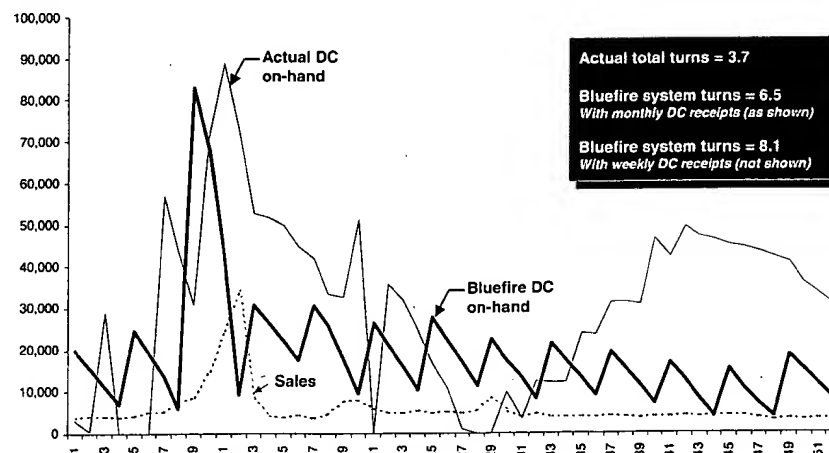
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## ... THEREBY DELIVERING SUBSTANTIAL INVENTORY TURNS IMPROVEMENT ...

----- Chain sales  
— Actual DC on-hand  
— Bluefire DC on-hand

Weekly units

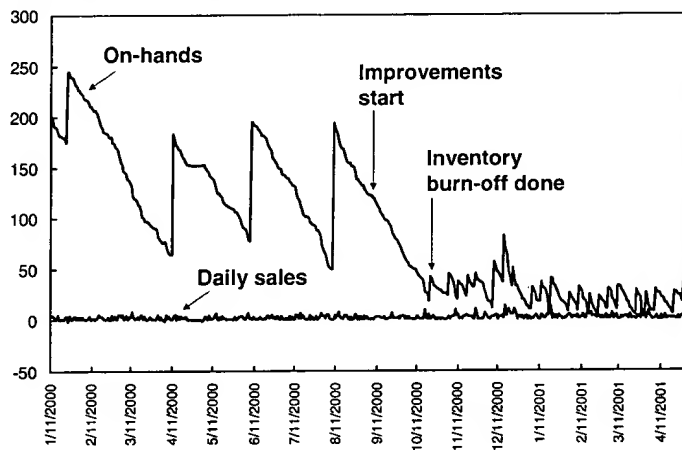


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## ... DOWN TO THE STORE LEVEL

Daily sales and on-hands – example store



Increase in sales, margin, and inventory turns for basic items from better decisions

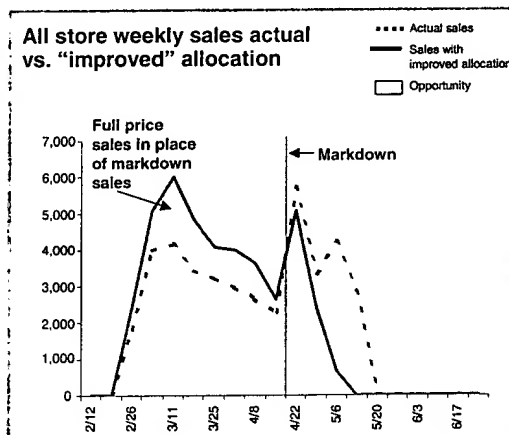
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## RESULT – PROFIT IMPROVEMENT

APPAREL EXAMPLE

All store weekly sales actual vs. "improved" allocation



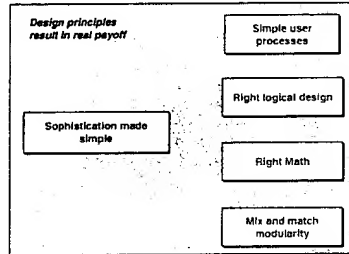
	Actual	Filled
Full price	24,570	32,672
Markdown	16,168	8,066
<b>Total</b>	<b>40,738</b>	<b>40,738</b>

- 8,102 units sold full price instead of at markdown
- Revenue realization improved from 73% to 86%
- Gross Margin improved from \$262,018 (39%) to \$381,137 (49%)
- Old merchandise out 1 week earlier

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## SUMMARY OF CLIENT IMPROVEMENT SINCE BLUEFIRE IMPLEMENTATION



### Elements

### CLIENT Results After Bluefire

#### Basic items

- Sales
- Inventory turns
- Inventory write-offs
- Negative comps to 6% comps
- Up 25%
- Down 20%

#### Fashion items

- 1<sup>st</sup> year
- 2<sup>nd</sup> year
- Like program revenue up 7%
- Like program revenue up 10%

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## BLUEFIRE SYSTEMS RESULTS

### Our target

*Substantially and measurably improve the profitability of retailers*

### Our approach

*Deliver superior operational business science through software and professional services*

### Typical Results






Our offerings typically produce results that ...

- Increase revenue by ~ 5-7%
- Improve gross margin by ~ 2-4%
- Improve inventory turns by ~ 25%
- Lower costs and improve predictability of business

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## LOGICAL ELEMENTS AND PATENT APPLICATIONS

Logical element	Applications – not limiting
	Fashion/basic split 09/708,944 docket 1000 (Jeanty, promos calendar) 09/755,635 docket 1001 (PQ)
	Item/location/day optimization Throughout
	Multi-echelon optimization Throughout, especially 09/905,255 docket 1007 (Hirl)
	Correct presentation/ event integration 09/755,635 docket 1001 (PQ); 09/766,539 docket 1005 (PQ+reports) 09/708,944 docket 1000 (Jeanty, promotions calendar) 09/760,377 docket 1003 (Causal+reports)
	Right calculation engines 09/755,355 docket 1002 (cloned history) 09/905,174 docket 1006 (cannibalization) (no OA) 09/888,336 docket 1004 (simulating+OTB) (no OA) 09/905,255 docket 1007 (Hirl, simulating w/ all)

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